ABSTRACT

RAMPRF: A Program for Synchronous Acceleration,*
Miguel A. Furman, Accelerator and Fusion Research Division,
Lawrence Berkeley Laboratory — We describe a family of FOR-
TRAN programs that calculate bucket-related quantities as a func-
tion of time during acceleration, assumed adiabatic. The members
are distinguished by the type of input. One family member takes
energy and total peak voltage as a function of time. Another takes
momentum and bucket area as a function of time, etc. The input
is in free-format tabular form. The output is of two kinds: multi-
column tables and $x - y$ listings appropriate for plotting. Bunch-
related quantities, such as energy spread and space-charge tune
spread, are also calculated assuming that the bunches are small,
matched to the bucket, and have a specified longitudinal emittance.
Sample excitation curves for the SSC and its three boosters are pre-
sented.

Submitted by: _____

Miguel A. Furman

AFRD/ESG, MS 71-H
Lawrence Berkeley Laboratory
Berkeley, CA 94720
(415) 486-6443

Type of Presentation: poster
Classification: D06